

THE TECH

VOL. XXVII. No. 68

BOSTON, MASS., WEDNESDAY, APRIL 8, 1908

PRICE THREE CENTS

ADAPTATION OF CONCRETE BEING STUDIED BY CIVILS.

MANY THESES ON IT.

Arches, Standpipe, Warehouse, Dam, and Beams Among Subjects.

Concrete, with its use and adaptations, seems to be a popular matter for study among the civil engineering seniors this year. There are four theses on the designing of reinforced concrete arches, and theses on a concrete arch and approaches, on the design of a concrete standpipe, on the design of a concrete warehouse and on the design of a concrete dam. A series of tests is being run on reinforced concrete beams.

One thesis of local interest is an investigation of the water waste in the city of Boston.

Such theses as have been reported since the last list given out, are as follows:

Railroad Option.

"Plan for Grade Elevation at Newton Lower Falls," by M. Ames and H. H. Howland.

"Design for a Steel Railroad Bridge," by C. C. Barcus.

"Design for a Reinforced Concrete Arch," by G. A. Dubois.

"Design for a Two Hinged Steel Arch," by F. Garcia.

"A Study of Solid Floors for Railroad Bridges," by R. D. Hennen.

"Design for a Railroad Roundhouse," by F. H. McGuigan.

"Design for a Reinforced Concrete Arch," by T. W. Orr.

"Design for a Three Hinged Arch," by H. J. Ruggles.

Hydraulic Option.

"Investigation as to the Depth in a Vertical at which Ratio of Observed to Mean Velocity is a Least Variable," by W. I. Griffin and M. E. Allen.

"Experiments to Determine Coefficients of Distribution of Certain Types of Sprinkler Filter Nozzles," by W. E. Barton and E. R. Smith.

"Gauging of Stream Flow by Chemical Means," by G. M. Belcher and C. S. Colson.

"Design for Reinforced Concrete Arch," by C. H. Boylston.

"Design for Approaches and Concrete Arch over the Charles River in Newton, Mass.," by A. E. Bremer and F. A. Cole.

"Design for a Reinforced Concrete Stand Pipe," by M. P. Burroughs.

"Investigation of Surface Curve of Weir Sheet and Best Profile for Roll-Way of Dam," by C. G. Carson.

"Design for Reinforced Concrete Retaining Wall," by H. H. Damon.

"Tests on Reinforced Concrete Beams," by R. W. Ferris and A. Dana.

"Design for a Reinforced Concrete Warehouse," by S. L. Davidson.

"Design for a Sewage Disposal Plant at Taunton, Mass.," by A. T. Dean.

"A plan for Elimination of Grade Crossing at Greenwood Avenue, Rumford, R. I.," by G. M. Dexter.

"Investigation of the Water Waste in the City of Boston," by H. C. Wilton and H. W. Griswold.

"A study of the Removal of Ledges Under Water," by H. T. Gerrish.

"Design for a Reinforced Concrete Dam," by G. M. Gikison.

"Design for a Reinforced Concrete Arch," by P. J. Hale.

"Study of Sewage Plant," by W. D. Milne.

RUMFORD MEDAL MEN TO TALK.

E. G. Acheson, who has been awarded the Rumford Medal by the American Academy of Arts and Sciences for distinguished work in his successful production of deflocculated graphite for lubricating purposes, will address the Society of Arts on the "Deflocculation of Non-Metallized Amorphous Bodies" in 2 Walker tomorrow night at 8 P. M. The address will be illustrated by experiments of exceptional interest.

TRUE TECHNOLOGY STUNTS PLANNED FOR TECH NIGHT.

AMATEUR ACTS READY.

Soph-Fresh Relay Race and Architects' Parade, Under Rebori's Direction.

Amateur stunts of all sorts will be on the program for Tech Night at the Boston Hippodrome. Not only will the general direction of the various performances be in the hands of Tech men, but the best part of the performance, from the standpoint of the institute sympathizers, will be performed by students.

That the stunts will be carried through with a vim is assured by the fact that Andrew H. Rebori, a graduate student in the architectural department, has consented to take the position of ringmaster and announcer. His experience in Tech Show will stand him in good stead, together with his ready wit and ability to imitate.

There has already been arranged a relay race between the sophomores and freshmen, each team to be composed of ten men. The uniforms to be worn will be other than the conventional, and the distance will be that which the weakest member of either team can run to the greatest advantage. F. D. Stewart and R. S. Breyer are arranging for the sophomore team, while W. J. Seligman is arranging for the freshman team.

The architects have taken up the idea of a course parade and already have stunts in preparation. It has been suggested to the civil engineers that the parade take the form of a competition between Course 1 and Course IV with floats and costumes. If this is arranged prizes will be offered by The Tech.

Mr. Towne is making final arrangements for stunts to be given by various members of the gymnasium team. Tomorrow there will be a meeting of the team to talk over what is possible in the line of amusing tricks and stunts. It is very probable that there will be two blindfold boxing matches, and an elephant race.

TWO PRACTICE GAMES.

Freshmen Divide Up and Will Play Today.

All candidates for the 1911 team are to show up for practice this afternoon. Each player will be tried out in the two games this week, half on Friday, and the other half on Saturday. There will be a practice game today between two teams made up of freshmen. The line-up will be:

Team A.	Team B.
McLoughlin, p.	Kenney, cf.
O'Neill, 2b.	Merrill, lf.
Williams, c.	Maguire, c.
Couill, lf.	Wood, rf.
Johnson, 3b.	de Florez, 3b.
Odell, 1b.	Covee, p.
Yearance, ss.	Parker, ss.
Osborne, rf.	Schatz, 1b.
Hopkins, cf.	Blums, 2b.

SOPHOMORE BALLOTS OUT TODAY.

Technique Committee Votes Due Saturday

Sophomore Ballots.

Ballots for the Technique 1910 electoral committee are to be ready for distribution today and are due at the Cage at 9 o'clock Saturday morning. These ballots contain the names of all the members of the class. Twenty-five men are to be voted for on each ballot.

These twenty-five men will constitute the board which will choose the editors of Technique 1910, and thus this election becomes one of the most important in the classe's undergraduate life. It has been the custom to place on this committee not necessarily those members of the class who would do the best Technique work but rather those who would, through their connection with student activities, be better qualified to choose such editors from among their fellow-classmates.

NUMBER OF APPLICANTS LARGEST EVER RECEIVED.

ONLY A FEW SEATS LEFT.

Sale of Tickets and Posters Begins Today in Rogers.

More applications for seats for the Show were received this year than ever before in its whole history. All of the seats on the floor are sold for both performances, all but a few of the first balcony seats, and most of the second balcony. It was of course, impossible to give everyone the seats applied for, but in all cases the order was filled as nearly as possible. Many who applied for two dollar seats and were assigned cheaper ones or box seats, may be dissatisfied, but, "considering the sale, they were lucky to get any at all," says the management.

It is lucky that the number of applications was so large, as the Show needs all the money it can make. The Show is unfortunate this year in being unable to give a Malden performance, and in the heavy expenses of the one at Northampton. Advertising for the program, too, is hard to get this year, and for all these reasons, it is hoped by the management that all applicants for tickets will take those assigned to them, even if they are not exactly what was wanted.

Northampton comes in for its share of the popularity, and already about 200 seats for that performance are sold. The seats will all be at the Show office, 34 Rogers at 1 P. M. today.

The posters are out at last and will be on sale today. A departure from the usual custom is made this year in having the poster printed on a light grey mat and mounted on heavy cardboard. This makes it particularly effective, and brings it out well. The price, as usual, is 25 cents.

NAVAL ARCHITECTS INVESTIGATING.

Fuels, Engine Trials and Power, Steel Among the Subjects.

In Course XIII much of the thesis work is very new and each thesis is different from the other, there being many matters about ship design, performance of new type engines and fuel as used on ship board that little is known about. Another factor entering is the small number of students taking up the study, the Institute department being practically the only one of its kind in this country.

On fuels E. F. Heard and C. D. Steele are running a thesis together, which is "A Test on a Two-Cycle Gasoline Engine to Determine the Efficiency of Different Fuels." The test on the gasoline was finished in the Pierce laboratories at the Institute some time ago. The other tests will be carried out at the Institute.

"A Determination of Engine Power and Speed Trial on Steam Védette Boat 'Beth'" is a thesis being carried forward by Joseph Pope, the determination of power being already finished in the engineering laboratories, while the speed trial and final test will be made with the boat at Marblehead.

Maurice E. Denny finished the actual work of his thesis last summer in the towing tanks at a shipyard in Scotland. The subject is "Tanks and Trial Results of the Twin Screw Steamer 'Hythe'". He is now at work on the computation.

L. H. Sutton is carrying on tests of the comparative corrosibility of iron and steel, many of which are to be made off Baker's Island, Marblehead, the others at the Charlestown Navy Yard.

B. U. LEADER ONCE AT TECH.

Jeremiah J. O'Sullivan of Lowell, who has been elected president of the non-college division at the Boston University Law School, attended the Institute two years, entering with the class of 1908.

STATE BILLS FAIL TO PASS MUSTER.

KNOCKS FAST AND FURIOUS.

Civic Club Refuses to Accept Measures of Real Massachusetts Court.

Politics is an amusement which is bound to become tainted unless everyone takes an active or at least an inactive but interested part. Gratton D. Cushing of Boston, a member of the state legislature, in his introduction to the civic club house of representatives' meeting last night at the Union also pointed out how this state's legislation accomplishes results for, although inferior in having longer sessions than in other states it is probably better in the long run as a large amount of good legislation is thereby pushed through.

An act for a bath house on the Revere Beach reservation for use during the entire year fathered by Rep. C. N. Morrison, was loudly denounced by Rep. Lisbet from Lynn, as its use would result in the increase in the number of the hospital inmates unless a medical examiner was on the premises and in the water.

Expert testimony was given from Prof. Sedgwick. Rep. Morrison said Prof. Sedgwick says dirt removal promotes health. Rep. Ruckmann counteracted the effects of this by quoting Prof. Sedgwick as saying that Boston sewage was contaminating Revere Beach water.

"Another tool for Governor Briggs" was the cry of Rep. Ellis against the bill for a commission on education.

Representative Seaver, otherwise renowned, acted as an expert witness and turned king's english evidence against the measure as its punctuation was poor.

Rep. Dewey from Wayback, in conjunction with Representative Hoole and Adams, decried the bill on the suspension of the Boston City Council, as it was an attempt of the Republicans in the state legislature to put all the Democrats in the city council out of a job.

In connection with the smoke nuisance bill, Rep. Dewey from Wayback, said that studying was even affected in the colleges within a stones' throw of the seated government. Rep. Seaver immediately soundly rated the gentleman from Wayback for even thinking of such a thing as throwing stones at the nearby colleges.

Ellis, Adams and Nisbet were selected a committee to arrange for the election of officers. Nominations for the offices of the Civic Club must be in at the Cage within two weeks from last night.

Morris K. Jessup, interested in civic affairs in general and who has been backing the Perry expeditions in particular, will likely speak at the dinner, the last event of the civic club this year. He will be here at the time as he has been secured by the civic club through E. R. Ellis secretary, for the last Huntington Hall Convocation to be held the eighteenth or nineteenth of next month.

TRIALS ON THE SIXTEENTH.

Relay Team To Be Finally Picked Then.

Final trials for the relay team, which will represent Technology in the New England inter-collegiate relay race at the Pennsylvania relay carnival, will be held Thursday, April 16.

A large number of men reported at the field yesterday, Coach Kanaly giving them individual work. Among the men out yesterday were: F. E. Bell 1910, H. W. Blackburn 1908, F. C. Dolke 1911, K. D. Fernstrom 1910, R. H. Gould 1911, A. A. Gould 1910, L. G. Glazier 1911, C. W. Gram 1909, P. Hart 1910, H. Lockett 1910, L. A. Loomis 1908, H. O. Mills 1910, J. D. MacKenzie 1911, W. T. MacCreadie 1911, G. H. Magee 1910, S. M. Niles 1911, H. J. Ruggles 1908, W. C. Salisbury 1911, E. Stuart 1910, F. D. Stewart 1910, P. D. White 1911, G. B. Wilbur 1911, J. B. Walcott 1911, W. O. Whiting 1911, W. H. Hildebrand 1911, J. A. Christie 1909, T. W. Orr 1908, B. L. Gimson 1908.

THE TECH

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Editorial Staff.

CHANNING TURNER 1908 *Editor-in-Chief*
W. F. DOLKE 1908 *Managing Editor*
D. C. MCMURTRY 1910 *Sporting Editor*
H. W. HOOLE 1908
H. L. PEARL 1910

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D. CLAPP 1910

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D. R. STEVENS 1911 L. G. GLAZIER 1911
G. C. KENNEY 1911 R. H. RANGER 1911

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Wednesday, April 8, 1908.

CHALLENGE.

The Tech baseball team hereby challenges the Technique 1909 baseball team for the Technology press championship, game to be started on Tech Field, Brookline, Wednesday morning, April the 22nd, at 10.30 of the clock, with the further condition that neither board shall engage in previous practice.

UNREASONABLE.

In a recent issue of The Tech appeared a communication from Technique 1909 urging better support from the student body. It seems unreasonable that Technique, one of the worthiest of Institute activities, one on the success or failure of which may depend in part the Institute's reputation, should need to ask for support. Every one connected with the Institute should feel it his duty to give his heartiest support to his own annual, certainly to the extent of subscribing for a copy.

The present Technique board is to be congratulated upon the way in which it has emerged from the deluge of adverse circumstances of which it has been the victim. During the summer three members of the board elected in the spring disappeared, never to be heard from, and at present but seven of the original board of fifteen remains. Much difficulty has also been encountered in those getting advertisements, because of the recent financial depression.

Despite all this the board has now on the eve of publication a Technique of at least eighty pages, more than Technique 1908, and one which, it is believed, reaches the highest standard of perfection in illustrations, binding, and literary work.

The editors have done their work; it is now up to every one to help make Technique 1909 a financial success by signing for his subscription.

THE DEMON DRINK.

Ah! but the Musical Clubs are about to do a great stroke of business. Verily the degeneracy in song is about to die. We should, however, pause before plunging the breweries of Milwaukee and the stein factories of Weehawken to destruction. For will not this be brought about by the stamping into oblivion of the good old Stein Song by the limping feet of more virtuous stanzas?

We are forced to crawl away, with our wounded pride in the dust, from the stand taken some months ago in these columns. For in one issue, when the editors secured a leave in order to become acquainted in the proper spirit with that rollicking, heart-stirring hymn by Hovey and Bullard, the office-boy, left in charge of the forms, did write an editorial fraught with evil intent, committing us to a reform.

We have read this editorial and would fain say that it meant nothing; but pause at these words, "the Tech does not agree with those who called standing for it worshipping the sacred bottle, but does feel it inappropriate to present to the world at large as representative

of the Tech man's highest standards." Which "it" is meant is hard to say, the bottle or the song. If the office boy had been nearer the song and further from the "bottle" there would be a chance for an ethical criticism, but we have to drop to trivialities and folly for vindication.

Let us first hear what the debauched have to say, if their words are worthy of notice. The bacchanalian architects have registered their disapproval, apparently, by pleading that the "Star Spangled Banner" be not tampered with or hurtled. As if the national anthem had anything to do with it.

A low-moraled sophomore has said, "We do love a good stein of beer, but do we love Technology?" We will not pause to chide this fellow but leave him to his foreordained and just retribution.

Before giving commendation to that virtuous hydra-human graphophone, the Musical Clubs, we venture a word of pity for our friend Arlo Bates. Although we have besmirched the pure fountain of English many the times, we weep upon imagining his reading of the suggestive verse printed on March 19 last below the clubs' magnificent offer of ten bones. The busted meter and unholy rhymes must have given the exponent of higher English a spasm. Truly if tomorrow the honored English professor is forced to read and judge such verse as the suggestion, we feel sorry, even, as we have said, would weep, and dread a deep loss in our midst from apoplexy or worse.

But let us away from scenes of sadness and at the original theme. It seems that long association stands no more for aught. The bounding hopes of youth are no longer to be promulgated in the words of the beer trust, according to this new movement. The Congregational Society of Newtonville or some other place in the wild wilderness righteously rose in wrath last year and banned the Stein Song from the cars of the incipient. Was this the starting of the crusade on our beloved?

Once we had a president who stood for what the Germans sit-beer at the Kommerz-in the face of a clerical and Christian Endeavor word storm. Would that we had his courage. In fear we hold our tongue and hands whilst the straight-laced wantonly rive our sentimentalities, "Tear our tattered ensign down, expose Paul Revere, put the 'Star Spangled Banner' in cold storage, and expurgate the word beer from the bright lexicon of youth, even if the traffic in high balls flourishes.

Many the times have we stood in our good old Union, grasping the good old stein full of good old two-percent. Union beer in our good old right, and goodly belov'd the good old sentiments of the good old Stein Song until the New Haven trains were silenced and the janitor awoke. But alas, no more! Back to the Tech dirges by Tech odists, whose stanzas loose our lachryminal glands and give us choking thirst! To these the Musical Clubs with their filthy lucre would lead us.

All ye unrighteous but sentimental may curse strong but it will be without effect, for virtue is in the land, abstinence of the alcoholic in word and song stalks, and the Musical Clubs proud like the pointer pigeon waxeth virtuous.

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RAILROADS INTEREST COURSE VI MEN.

Important Investigations Going On in
Thesis Work.

A number of Course VI seniors have
taken advantage of the movement to
electrify railroads by considering the
electrification of systems near Boston.
Hallett and Spengler are studying a
schedule for the electrification of the
B. & A., while Hayes and Warren are
working on the practicability of the
electrification of the Hoosac Tunnell.

Pierce and Kinsman are running a
big efficiency test on the turbo- gen-
erator of the United Shoe Machinery Co.
Place, Pattern, and Plummer, also are
doing an interesting investigation, a
test of the electric switching locomotives
at Whitinsville, Mass.

The list of theses follows:

"The Effects of Frequency on the
Dielectric Strength of Materials," by
Jennings and Willey.

"The Efficiency Tests of the Turbo-
generator at the United Shoe Machinery
Company, at Beverly, Mass., by Kins-
man and Pierce.

"A sketch of the Development of A.
C. Machinery," by Kolatschevsky.

"A Study of Arcs on Air Switches,"
by Moreland and Anthony.

"The Electrolytic Corrosion on Steel
in Reinforced Concrete," by Nichols.

"The Use of a Synchronous Motor as
a Power Factor Compensator on a Bos-
ton Edison Transmission Line," by Os-
borne.

"A Test on Electric Switching Loco-
motives at Whitinsville, Mass., by
Place, Patten, and Plummer.

"Current Rushes in Transformers," by
Poor and Weeks.

"Time Required in Opening Various
Circuit Breakers," by Slack and Tolman.

"The Electrical Resistance of Lime
Joints," by Fletcher.

"The design of a hydro-electric Power
Plant," by Bird and Murfey.

"The Effect of Temperature upon the
Traction Coefficient of a Street Rail-
way," by Bixby and Sloss.

"The Effect of the Neutral of Unbal-
ancing a Three-wire Load on a Rotary
Converter," by Booth and Kilburn.

"Tests on Enclosed Fuses," by Bow-
man and Hedge.

"Comparative Tests on Storage Bat-
teries," by Brown and Fuller.

"Tests on a Rotary Converter Oper-
ating at Approximately Unit Power
Factor," by Bullard and Gaylord.

"A Test on an Automatic Synchron-
izer," by Burgess and Richardson.

"The Effect of Unbalanced Pressure on
the Heating of a Rotary Converter," by
Davis and Reid.

"The Torque Characteristics of an A.
C. Series Motor," by Fottler and Lyle.

"A Method of Improvement of Power
Factor at the Gillette Safety Razor
Company," by Goodman and Shalling.

"An Acceptance Test of a Turbo-gen-
erator at Manchester, N. H.," by Good-
now and McLigne.

"Test on Bitumenized Fibre," by Hale
and Manning.

"A Proposed Schedule for the Electri-
fication of the Boston and Albany Rail-
road," by Hallett and Spengler.

"The Practicability of the Electrifica-
tion of the Warren.

NOTICES.

STEIN SONG WORDS.—Contest
closes at noon today.

CLASS DAY COMMITTEE.—Meeting
today at 4.30 in 26 Rogers. Picture
Friday at 1 P. M. at Notman's, 384
Boylston St.

NEWTON HIGH SCHOOL CLUB.—
Meeting Friday at 1.00 in 26 Rogers.
All former students are requested to be
present.

1911 CROSS-COUNTRY.—All candi-
dates for the Freshman team report at
the field every day. The first six men
of the winning team will get their num-
erals.

MINING ENGINEERS.—Meeting of
the Mining Engineering Society tonight
at 8.00 at the Union. Mr. W. Spencer
Hutchinson will speak on mining in
new Ontario.

GYM MEN.—Those who took part in
the gym exhibition Friday will meet Mr.
Towne at the Gym today at 4 P. M.
to arrange for an exhibition at the Hip-
podrome on Tech Night next Friday
evening.

Y. M. C. A.—Members who have not
received ballots may procure them at
the office in 5 Eng. B today from 1
to 4.30 P. M., or tomorrow at the noon
meeting. Rev. Robt. F. Leavens of
Arlington St. Church will speak at the
meeting tomorrow at 1.30 P. M. in
Trinity Church Library.

The Technology Review

A QUARTERLY MAGAZINE
DEVOTED TO THE INTERESTS OF
THE MASSACHUSETTS INSTITUTE
OF TECHNOLOGY

AND

PUBLISHED BY THE ASSOCIATION
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83 NEWBURY STREET, BOSTON

The Review aims to develop closer relations
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Education and the responsibilities of the pro-
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CALENDAR.

Wednesday, April 8.

- 1.30 P. M. Glee Club Rehearses in 26 Rogers.
- 4.00 P. M. Gym Team Meeting at the Gym.
- 4.00 P. M. Tech Show Chorus Rehearses at the Union.
- 4.00 P. M. Lecture on "Electricity in Mining" in 2 Rogers.
- 4.30 P. M. Senior Class Day Committee Meets in 26 Rogers.

Thursday, April 9.

- 1.30 P. M. Y. M. C. A. Meeting in Trinity Church Library.
- 1.30 P. M. Glee Club Rehearses in 26 Rogers.
- 4.00 P. M. Tech Show Principals Rehearses at the Union.
- 4.00 P. M. Track Team Reports at the Field.
- 4.15 P. M. Mandolin Club Rehearses in 31 Rogers.

Friday, April 10.

- 1.00 P. M. Class Day Picture at Notman's, 384 Boylston St.
- 1.00 P. M. Newton High School Club Meets in 26 Rogers.
- 1.30 P. M. Glee Club Rehearses in 26 Rogers.
- 4.00 P. M. Tech Show Chorus Rehearses at the Union.
- 4.00 P. M. Track Team Reports at the Field.
- 4.15 P. M. Banjo Club Rehearses in 33 Rogers.
- 4.00 P. M. Lecture on "Electricity in Mining" in 2 Rogers.

FACULTY NOTICE.

FIRST YEAR.—The first exercise in Shades and Shadows will be given at 10 A. M. in 40 a Pierce. To this exercise students should bring a T-Square, 45 degree triangle, thumb tacks, rubber, etc. Paper will be provided.

CLASSIFIED ADS.

Advertisements of this kind under different classifications are inserted at the rate of five cents a line, averaging six words to a line, payable in advance.

WANTED.—Hoffman's "Metallurgy of Iron and Steel." A. C. Nichols 1908, 41 B, or note at Cage.

WANTED.—500 more subscriptions to Technique 1909.

LOST.—A first year math. book. Finder please return to the Cage for Richard H. Ranger.

Men who desire summer work at \$2.50 per day, leave note for Woodruff at the Cage. ATTEND TO THIS NOW.

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CAMERA FOR SALE.—A Century 4x5 camera with unusual good lens, for sale. Exchange for Eastman Folding Kodak will be considered. Address Box 24, the Cage.

FOR SALE.—Indian motorcycle, new last September, run only 312 miles; guaranteed in perfect condition. \$145 cash, cost \$210. For further particulars leave note at cage for T. F. W. Meyer.

FOR SALE.—Technique 1909 has a few subscriptions to the Engineering Record, the Street Railway Journal, and the Electrical World, which will be sold at \$2.50 as long as they last. Regular price \$3.00.

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